

NUTRIENT MANAGEMENT (CSP Enhancements)

October 2005

Colorado Enhancement Activity Job Sheet N-4

Name:

Precision agriculture nutrient application based on "Management Zone" soil sampling + additional data layer(s)

Payment = \$ 3.00 / Acre / Year to apply nutrients based on a "Management Zone" sampling for nitrogen and phosphorus plus one "management zone" layer.

Payment = \$ 4.00 / Acre / Year to apply nutrients based on a "Management Zone" sampling for nitrogen and phosphorus plus two or more "Management Zone" layers.

Enhancements activities refer to actions that provide resource benefits beyond the level prescribed by The Natural Resources Conservation Service (NRCS) Conservation Practice Standards. Once implemented, enhancement activities should result in an observable or measurable improvement to the condition of one or more of the soil, water, air, plant, or animal resources, or provide for more efficient resource utilization and/or energy conservation.

"Management Zone" layers refer to those data layer maps developed for a field to determine nutrient application rates. Layers may include electrical conductivity, crop yield, soils, topography, weeds, soil salinity, and rainfall maps.

Precision (site specific) application of nutrients is conducted on all cropland acres for commercial and/or livestock waste sources. "Management Zone" sampling techniques for nitrogen and phosphorus are observed, and application rates are in accordance with state land grant university recommendations. If irrigated, Irrigation Water Management (449) is applied. Irrigation water analysis is conducted for nitrates and all sources of Nitrogen (N) are credited in determining N application rates.

Appropriate timing and/or methods are used to maximize efficiency including side-dress (growing season only), split application (spring and growing season only), and/or chemigation through sprinkler irrigation systems (growing season only) for nitrogen in summer row crops. Split application for nitrogen in small grain is at planting time and late winter to early spring. Phosphorus (P) is applied on soils with soil test levels that are low enough to have P recommended by state land grant university. All commercial P is applied at state land grant university recommended rates. N is applied at varying rates on each management zone, depending on the N credits and soil test levels in each zone.

Documentation Required: Farmer or crop consultant certification of nutrient application with precision agriculture nutrient application based on management zone soil sampling. Use the following Tables for documentation of sampling and application. An example is provided to assist you.

Tract & Field #s or Names	Additional "Zone" and Acres in soil test	Date of "Zone" soil test	Soil test lab #
T486 - 1	topography - 225	09/01/03	17585
Smith farm - fld#2	crop yield - 245	03/01/04	16854

Tract & Field #s or Names	Acres	Crop	Nutrient	Agronomic Rate	Applied Rate	Date Applied
T486 - 1	120	Wheat	N	100	60	10/15
T486 - 1	120	Wheat	N	100	Variable rate(VRT)	3/22
T486 - 1	120	Wheat	P	100	30	10/15
T486 - 2	320	Wheat	N	100	Variable rate(VRT)	3/22
Smith farm - fld#2	65	sorghum	N	120	60	4/20
Smith farm - fld#2	65	sorghum	N	60	VRT	6/11
Smith farm - fld#2	65	sorghum	P	45	VRT	4/20

